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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,626	11/24/2003	Kuo-Chi Chiu	3313-1066P	1302
2292	7590	08/18/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			TRINH, MINH N	
			ART UNIT	PAPER NUMBER
			3729	

DATE MAILED: 08/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/718,626

Applicant(s)

CHIU ET AL.

Examiner

Minh Trinh

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 1-6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/24/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's election with traverse of Group II (Method invention, claims 7-11) in the reply filed on 6/13/05 is acknowledged. The arguments with respect to product invention are not persuasive because claims are directed to product versus Method and each invention is independent or distinct from one another such as: a) inventions I and II each have a separate status in the art and clearly have a separate field of search, and the search required for Group I is not necessary required for Group II. b) product invention I can be made by another and materially different process instead of the process as recited in invention II (as indicated in prior action paragraphs II). Applicants' reasons therefore are not persuasive. Applicants are not entitled to examination of multiple independent inventions in one application. Moreover, examination of the independent inventions herein would present a serious burden to the Examiner in as much as the searches are not coextensive and the art is quite prolific. Accordingly, the requirement is repeated and **MADE FINAL**. Thus, the product claims 1-6 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 6/13/05.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention (Method invention) to which the claims are directed.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

"The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 7-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase: "the surface of the substrate" (claim 7, line 4) lacks proper antecedent basis.

It is unclear whether "the circuit" (claim 7, lines 6 and 7) as same as "circuit layers" recited in previous line 4.

What is being referred as "them" (see claim 7, line 8)

"the current input" (claim 7, lines 8); "the top layer" (claim 7, line 9); "the magnetic field distribution of each layer of circuit is arranged to stack" (claim 7, lines 12-13); etc., lack proper antecedent basis.

"the width" (claim 8, line 1); "the gap between two adjacent circuit wires" (claim 9, lines 1-2) lack proper antecedent basis.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 7-11 as best understood are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Reilly et al 6,150,915 in view of Lee et al (6,902,660).

O'Reilly et al disclose the method for manufacturing magnetic component by using PCB technology (see abstract) and the connecting of pattern circuit by via holes (see discussion at col. 3, lines 5-15). Lee et al disclose the filling or plugging the via hole by solder tin to enhancing the electrical connection between the conductive circuit layers (see col. 6, lines 64). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the lee's teaching as described above onto the invention of O'Reilly et al in order to facilitate the fabrication process including formulation of connection by Tin materials.

Regarding the size and gap configurations as recited in claims 8-11, it would have been an obvious matter of design choice to choose any desired size shape and gap configurations requirement since applicant has not disclosed that these features are critical, patentably distinguishing features and it appears that the invention would perform equally well with the configuration as shown in the prior art reference (see O'Reilly et al 's Figs. 2 -5).

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Limitations of claims 9-11 are also satisfied as the above discussion.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited prior art for the teaching of PCB manufacturing or the like.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Trinh whose telephone number is (571) 272-4569. The examiner can normally be reached on Monday -Thursday 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (571) 272-4690. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mt

8/14/05

Minh Trinh

Primary Examiner